

NEW SYNONYMIES, LECTOTYPE DESIGNATIONS, AND
OTHER NOTES ON NORTH AMERICAN *EPICAUTA*
(COLEOPTERA: MELOIDAE)

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Abstract.—Eight nominal species of North American *Epicauta* are reduced to junior synonyms. *Epicauta mixta* Dugès, long considered a junior synonym of *E. neglecta*, is given renewed status. The taxonomic position of *E. atricolor* Champion and *E. unicalcarata* Champion is discussed. Both are herein placed in the subgenus *Macrobasis*. Also, lectotypes for 11 nominal species are designated.

A revision of the nominate subgenus of *Epicauta* of North America including Mexico and Central America is now in progress. The establishment of certain synonyms and lectotypes is necessary now, however, to allow correct name usage in impending biological studies. Brief justifications for synonymies are presented here. More detailed treatment of the intraspecific variation relating to these as well as complete species synonymies will follow in the revision. The subgeneric assignment of two species, *E. atricolor* Champion and *E. unicalcarata* Champion, also is discussed.

SYNONYMIES

Epicauta brunnea Werner, 1944: 67

Epicauta innomina Dillon, 1952: 401. NEW SYNONYMY.

Dillon (1952) differentiated *E. innomina* from *E. brunnea* by its lighter body color, more flattened hindtibial spurs and the single foretibial spur in the male. Comparison of numerous *E. brunnea* with the type of *E. innomina* indicates that these traits are not significant. The presence of one rather than two foretibial spurs would appear to be important, but this turns out to be variable throughout the range of *E. brunnea*. In fact, the anterior spur is absent from the foretibia of the holotype of *E. innomina* but present in the male paratype from the same locale. In some cases the anterior spur is absent from one leg but not the other. It is not clear if the missing anterior

spur is always due to breakage. In certain individuals the socket of the missing spur is visible suggesting breakage. In others, including the holotype of *E. innomina*, a distinct socket cannot be seen.

Coloration of *E. brunnea* varies geographically. Representatives from the eastern portion of the range (central Texas) are considerably lighter than those from Arizona. Those from western Texas are somewhat intermediate.

The hindtibial spurs vary in width only slightly in *E. brunnea*. Those of the type of *E. innomina* are well within the range of variation.

***Epicauta cinctipennis* (Chevrolat, 1834: 59)**

Epicauta ruidosana Fall, 1907: 258. NEW SYNONYMY.

Fall (1907) apparently was unaware of *E. cinctipennis* at the time *E. ruidosana* was described. Material from Arizona, New Mexico, and Texas has been historically identified as *E. ruidosana* (e.g. Dillon, 1952; Werner, 1945), that from Mexico as *E. cinctipennis* (Werner et al., 1966). However, no appreciable differences exist between these populations. Some of the material from Arizona has black rather than white setae on much of the mid- and hindlegs, but this trait is variable even within Arizona.

***Epicauta nigratarsis* (LeConte, 1853: 340)**

Epicauta hesitata Dillon, 1952: 398. NEW SYNONYMY.

Dillon (1952) considered *E. hesitata* closest to *E. crassitarsis*. Examination of the types of *E. hesitata* shows them to be merely a minor color variant of *E. nigratarsis*. The head, pronotum, and elytra are uniformly tan in most *E. nigratarsis*. Several specimens throughout its range, however, have a dark head and pronotum. At an extreme, as in the types of *E. hesitata*, the head and anterior half of the pronotum are almost entirely black. The entire range of variation commonly occurs within the same series. In fact, a specimen from the same series as the holotype of *E. hesitata* (but not designated as a paratype) is of a lighter color.

***Epicauta obesa* (Chevrolat, 1835: 81)**

Epicauta auricomans Champion, 1892: 424. NEW SYNONYMY.

Epicauta ficta Werner, 1949: 100. NEW SYNONYMY.

Epicauta pseudosolani Dillon, 1952: 395. NEW SYNONYMY.

Epicauta obesa, as now defined, ranges from south central United States to Oaxaca, Mexico. Several traits vary geographically. Specimens from central and southern Mexico are generally less densely setate and have finer setae than those to the north. Mexican populations have somewhat more slender hindtibial spurs. The structure of the foretarsus in the male also varies. The first two segments are elongate, broadened, heavily padded, and

lack cinereous setae on the dorsum. This characterizes all populations but is better developed in Mexican material. All variation that I am aware of is clinal and not taxonomically significant.

Epicauta ficta and *E. pseudosolani*, described from Oklahoma and Texas, respectively, represent variants typical of the northern portion of the range. Type-material of *E. auricomans*, from Coahuila and Oaxaca, have longer and denser body setation more typical of populations from south central United States rather than from Mexico.

Epicauta rufipedes (Dugès, 1870: 163)

Epicauta insignis Horn, 1885: 110. NEW SYNONYMY.

Epicauta rufipedes is one of the most widespread and common species of *Epicauta* in Mexico. The species is characterized by the strongly ensiform antenna and single foretibial spur in the male. Variation in color pattern is extensive. In the commonest pattern the cuticle of the head and pronotum is black; the elytra also are black except for a narrow band of brown on the lateral, medial, and apical margins. These structures are generally covered with short, relatively sparse, cinereous pubescence which is denser at the elytral margins and along a narrow line down the center of the elytral disc.

Epicauta insignis, from southern Arizona and northwestern Mexico, appears to be nothing more than a variant of *E. rufipedes*. Unlike most *E. rufipedes*, specimens conforming to *E. insignis* have entirely brown elytra, which contrasts with the black head and pronotum. The elytral vitta is either absent or obsolescent. This color pattern, however, is not entirely unknown in central and southern Mexico, and, similarly, some individuals from Arizona have almost entirely black elytra as in typical *E. rufipedes*. The similarity of courtship behavior and first-instar larvae in a population from southeastern Arizona and one of typical *rufipedes* from the state of Puebla further supports synonymy (Pinto, unpublished data).

Epicauta stigmata (Dugès, 1870: 159)

Lytta neglecta Haag-Rutenberg, 1880: 54. NEW SYNONYMY.

The type-series of *E. neglecta* is mixed. The lectotype designated below for *E. neglecta* belongs to *E. stigmata*, a species of *Macrobasis*. One paratype belongs to the nominate *E. mixta* (Dugès). See discussion of *E. mixta* below.

RENEWED STATUS

Epicauta mixta Dugès, 1889: 83

Lytta neglecta: Haag-Rutenberg, 1880: 54 (in part).

Epicauta neglecta: Champion, 1892: 423 (in major part).

Epicauta mixta was treated as a junior synonym of *E. neglecta* (Haag-Rutenberg) by Champion (1892). However, of the three syntypes of *E. neglecta* examined, two belong to *Epicauta (Macrobasis) stigmata* (Dugès). Only the third represents the nominate species recognized as *E. neglecta* by Champion. Since Haag-Rutenberg's description of *E. neglecta* clearly correlates with the two misidentified types, I have chosen one of these as lectotype (see below). *Epicauta neglecta* now is a junior synonym of *E. stigmata*, and *E. mixta* Dugès is the valid name for the *E. neglecta* of Champion (1892).

The source of confusion in this case stems from the superficially similar variation in *E. stigmata* and *E. mixta*. Pubescence color varies similarly, ranging from entirely cinereous to entirely black. Both have a form that is black with intermixed cinereous hairs. The three types of *E. neglecta* are of this form. Also, a smooth glabrous callus on either side of the pronotal midline, a common feature in *E. mixta*, is present in some *E. stigmata*, including the two misidentified types of *E. neglecta*.

As indicated, Haag-Rutenberg's original description of *E. neglecta* clearly refers to *E. stigmata*. He states that the first antennal segment of the male is thick, three times as long as broad, and that the second segment is half as long as the third. Both traits characterize *Macrobasis*. He also states that the pronotum is somewhat longer or as long as broad. Again, this agrees with *E. stigmata*, but not *E. mixta* where the pronotum is noticeably broader than long.

Dugès' (1889) description of *E. mixta* was based on material from Oaxaca. It is not clear how many specimens were before him, but the lack of a range in his length measurement suggests only one. I have examined two specimens in what remains of the Dugès Collection at the Universidad Nacional Autónoma de México (UNAM) labeled as types of *E. mixta*. One is labeled "Oaxaca," the other, "Moro Leon." Both fit Dugès' rather generalized description. However, the latter is almost certainly not a type since Moreleon is a Guanajuato locality.

TRANSFERS TO *MACROBASIS*

Epicauta atricolor Champion, 1892: 419

Epicauta atricolor was removed from *Macrobasis* (as *Gnathospasta*) and placed in the nominate subgenus by Werner (1958). Its transfer was justified primarily by the absence of the hindtibial comb in one of the types. This trait is characteristic of most *Macrobasis* but is absent in some species (Selander and Mathieu, 1969). Examination of the type-series convinces me that *E. atricolor* should be reassigned to *Macrobasis*. The male lectotype (designated below) actually does have a poorly developed comb of three

teeth. Also, the first antennal segment of the male is slightly enlarged and curved. The antennal dimorphism is not as marked as in most *Macrobasis* but is no less developed than in certain species of the subgenus such as *E. evanescens* Champion. *Epicauta atricolor* should tentatively be placed in the Uniforma Group as originally indicated by Werner (1954).

Epicauta unicalcarata Champion, 1892: 412

Epicauta unicalcarata has never been formally assigned to subgenus, but its omission from Werner's (1954) list of species in *Macrobasis* (as *Gnathospasta*) and from other discussions of the limits of that subgenus (Werner, 1958; Selander and Mathieu, 1969) suggest its placement in the nominate subgenus. Indeed, Champion made no mention of antennal modifications typical of *Macrobasis* and considered this species closest to *E. horni* Champion, a nominate species.

I have examined the male holotype of *E. unicalcarata* in the British Museum (from Amula, Guerrero). It is badly damaged with the head and pronotum entirely missing. The hindlegs, however, are intact and the presence of a well-developed hindtibial comb indicates that the species belongs to *Macrobasis*.

I am not aware of additional material of this species. Features not mentioned by Champion that should help identify it are a small patch of brown pubescence on the apex of each elytron, a distinctly concave metasternum, flattened hindtrochanters, and the glabrous, subconcave ventral surface of the hindfemora.

It is not possible to assign *E. unicalcarata* to species group at this time.

LECTOTYPE DESIGNATIONS

Syntypes of several North American species described by Champion (1892), Haag-Rutenberg (1880), and Chevrolat (1834) were examined, and lectotypes are designated below. Syntypes were primarily identified by the correspondence of specimens and attached labels with original descriptions. All lectotypes are labeled as such and deposited in their appropriate museums. Additional syntypes are labeled paralectotypes.

Specific names are listed below in alphabetical order. The original genus follows the specific name in parentheses. Locales and other data are given as they appear on labels. Data from individual labels are delimited by a slash (/).

Abbreviations for museums are as follows: BMNH (British Museum of Natural History, London); HNHM (Hungarian Natural History Museum, Budapest); UZMH (Universitets Zoologiska Museum, Helsinki); ZSM (Zoologische Staatssammlung, Munich).

- atricolor* Champion (*Epicauta*). Lectotype: ♂, "Oaxaca, Mexico/Salle Coll./"; (BMNH). Paralectotypes: 5 (BMNH).
- auricomans* Champion (*Epicauta*). Lectotype: ♂, "Oaxaca, Mexico/Hoegel"; (BMNH). Paralectotypes: 4♂, 2♀ (BMNH). The specimen chosen as lectotype was figured by Champion (1892: Table 19, Fig. 24). This individual is abnormal in that the hindtibiae are abruptly and strongly bowed.
- basimacula* Haag-Rutenberg (*Lytta*). Lectotype: ♂, "Mexico/Samml. Haag-Rutenberg"; (ZSM). Paralectotypes: 1♀ (ZSM), 1♂ (UZMH).
- carmelita* Haag-Rutenberg (*Lytta*). Lectotype: ♂, "N. Grenada/F. Bates/typ. Haag"; (BMNH). Paralectotypes: 1♂ (HNHM), 3♀ (ZSM), 1♀ (UZMH).
- cinctipennis* Chevrolat (*Lytta*). Lectotype: ♂, "Mexico, Mineral del Zimapan/Sommer"; (UZMH). Paralectotype: 1♀ (UZMH).
- curvicornis* Haag-Rutenberg (*Lytta*). Lectotype: ♂, "Mexico/F. Bates/typ. Haag/"; (BMNH). Paralectotype: 1♀ (BMNH). I have examined 13 additional specimens from UZMH which are questionably from the original series. At least 4 of these represent species other than *curvicornis*.
- emarginata* Champion (*Epicauta*). Lectotype: ♂, "San Isidro, Mexico, Höge/"; (BMNH). Paralectotypes: 3♀ (BMNH); 1♀ (HNHM).
- leucocoma* Champion (*Epicauta*). Lectotype: ♀, "Tepanistalabuaca, Mexico, Salle Coll./"; (BMNH). Paralectotypes: 2♀ (BMNH). The lectotype was figured by Champion (1892: Table 19, Fig. 23); it is labeled a male in error).
- neglecta* Haag-Rutenberg (*Lytta*). Lectotype: ♀, "Mex./F. Bates/Typ. Haag"; (BMNH). Paralectotypes: 1♂ (HNHM); 1♀ (ZSM). As indicated, the original series of *E. neglecta* is mixed. The lectotype and male paralectotype are assignable to *E. stigmata*. The female paralectotype represents *E. mixta*.
- singularis* Champion (*Epicauta*). Lectotype: ♂, "Monterey, Nuevo Leon, Höge/"; (BMNH). Paralectotypes: 4♂, 1♀ (BMNH); 1♂ (HNHM).
- subvittata* Haag-Rutenberg (*Lytta*). Lectotype: ♂, "Mexiko/Coll. Blny./"; (UZMH). Paralectotypes: 1♂ (UZMH); 2♀ (BMNH). Five other specimens in UZMH also may represent part of the original series. *Epicauta subvittata* has long been considered a junior synonym of *E. rufipedes* (Champion, 1892).

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